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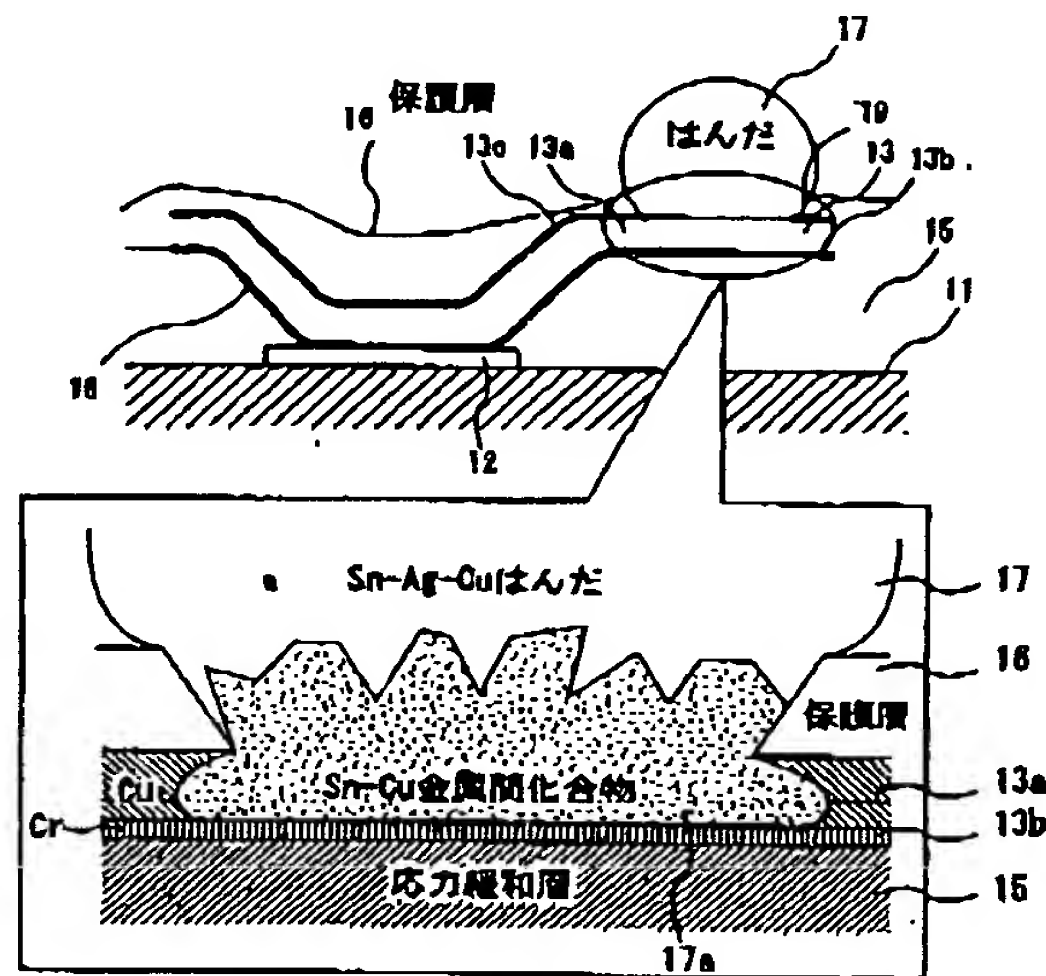
国際調査報告書

(54) Title: WIRING BOARD AND ITS PRODUCTION METHOD, SEMICONDUCTOR DEVICE AND ITS PRODUCTION METHOD, AND ELECTRONIC APPARATUS

(54) 発明の名称 配線基板およびその製造方法、半導体装置およびその製造方法並びに電子機器

(57) Abstract

A high-density wiring board having a high connection reliability and produced at low cost. The wiring board is characterized by comprising a board having an electrode and covered with an insulating layer in which a hole is made so as to expose the electrode, a wiring connected to the electrode and formed of a layer adhering to the insulating layer and made of Cr or Ti and a layer adhering to the Cr or Ti layer and made of Cu, a protective film covering the wiring and having therein a hole for soldering, and solder for external connection formed in the hole by diffusion-alloying the Cu layer and reaching the Cr or Ti layer for establishing connection.



16...PROTECTIVE LAYER

17...SOLDER

a...Sn-Ag-Cu SOLDER

17a...Sn-Cu INTERMETALLIC COMPOUND

15...STRESS RELAXATION LAYER

(図 1)



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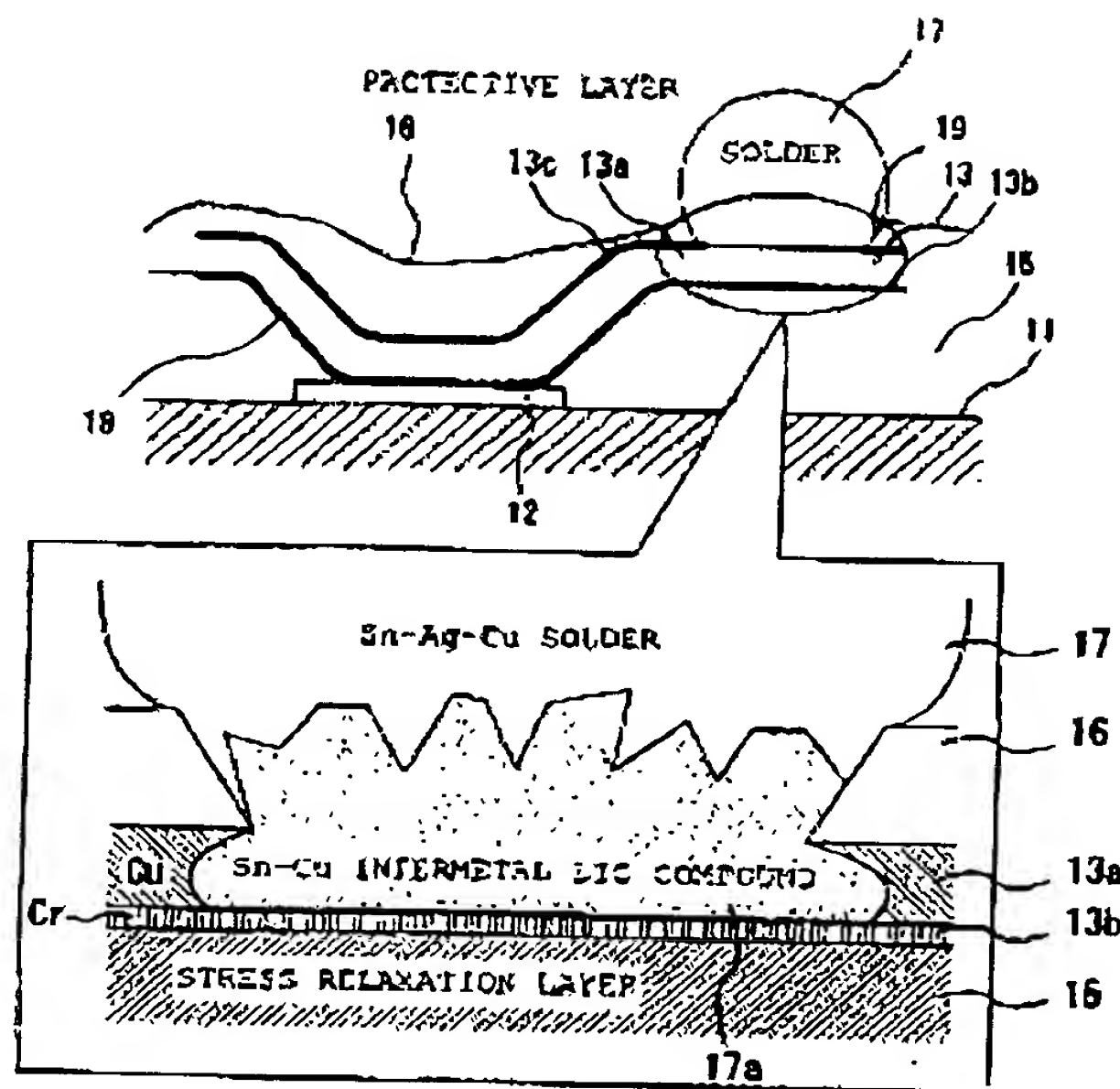
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Search scope: US EP WO JP; Full patent spec.

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WO0052755

WIRING BOARD AND ITS PRODUCTION METHOD, SEMICONDUCTOR DEVICE AND ITS PRODUCTION METHOD, AND ELECTRONIC APPARATUS
HITACHI, LTD.

Inventor(s): NARIZUKA, Yasumori ; ITOU, Mitsuko ; YAMAGUCHI, Yoshihide ; TENMEI, Hiroyuki
Application No. JP0000695 JP, Filed 20000209, A1 Published 20000908

Abstract: A high-density wiring board having a high connection reliability and produced at low cost. The wiring board is characterized by comprising a board having an electrode and covered with an insulating layer in which a hole is made so as to expose the electrode, a wiring connected to the electrode and formed of a layer adhering to the insulating layer and made of Cr or Ti and a layer adhering to the Cr or Ti layer and made of Cu, a protective film covering the wiring and having therein a hole for soldering, and solder for external connection formed in the hole by diffusion-alloying the Cu layer and reaching the Cr or Ti layer for establishing

3/4

connection.

Int'l Class: H01L02312; H01L02315 H05K00334

Priority: JP 11/49450 19990226

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